

32nd Meeting of the International Hamster Workgroup

26th – 28th September 2025 in Leipzig,
Germany

Part Thüringer Landesamt für Landwirtschaft
und Ländlichen Raum

Praxiszentrum Feldhamsterschutz,
section 31

**Hamster protection in modern agriculture
Measures, demonstration units with
suggestions for optimization and color
variation of common hamster**



Source: Praxiszentrum Feldhamsterschutz,
section 31 TLLLR

Background on past land use practices

Why do we have 3000 burrows on 250 hectares?

modern agriculture

ploughless tillage

reduced tillage

wing share cultivator

flat tillage



Source: Andreas Kröckel

Background on past land use practices

Why do we have 3000 burrows on 250 hectares?

modern agriculture

**reduced tillage
using StripTill technology**



Source: Andreas Kröckel

Background on past land use practices

Why do we have 3000 burrows on 250 hectares?

modern agriculture

**no use of
disc harrow/disc cultivator**



Source: Andreas Kröckel

Background on past land use practices

Why do we have 3000 burrows on 250 hectares?

modern agriculture

stubble field

use of adjusted crop protection

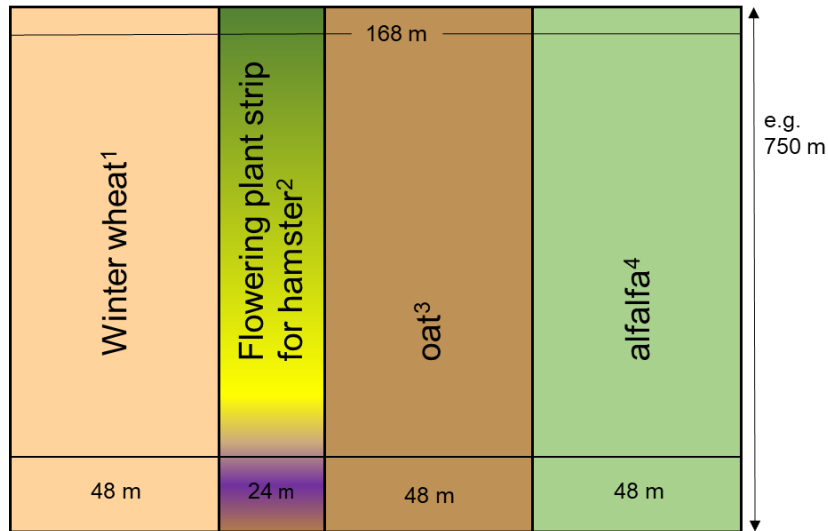
use of straw harrow



Source: Praxiszentrum Feldhamsterschutz,
section 31 TLLLR

Implementation of species-specific individual measures

Hamster parcels (KULAP F2)



hamster plot in accordance with KULAP Annex 2 (subsidy catalog)

¹ Cultivation of winter wheat as winter cereal on at least 20% of the area.

² Creation of a hamster stripe with sowing of flower mixture B2a in accordance with Annex 7 and an area of at least 10%.

³ Cultivation of oats as summer cereal.

⁴ Cultivation of alfalfa on at least 20% of the area.

Implementation of species-specific individual measures

Hamster parcels in 168 m total width 2024 (KULAP F2)



Source: section 31 TLLLR



Source: section 31 TLLLR

Implementation of species-specific individual measures

Hamster parcels in 168 m total width 2025 (KULAP F2)



- 1) spring barley
- 2) spring barley
- 3) winter wheat
- 4) alfalfa

Source: Praxiszentrum Feldhamsterschutz, section 31 TLLLR

Implementation of species-specific individual measures

harvest renunciation stripe

Very good acceptance of the animals

- Centering/immigration
- “emptying” observed in places



august 2024

october 2024

Demonstration unit undersowing variant StripTill

Orientation toward IFAB project
“Wide-row cereals with
flowering undersown crops”

- before harvest (right)
- after harvest (left)



26th-28th sep Leipzig

Source: Praxiszentrum Feldhamsterschutz, section 31 TLLLR

How does it taste?

26th-28th sep Leipzig



Source: Praxiszentrum Feldhamsterschutz, section 31 TLALLR

How does it taste?



26th-28th sep Leipzig

Source: Praxiszentrum Feldhamsterschutz, section 31 TLLR

Demonstration unit with undersowing and spring barley

variant drone



variant StripTill



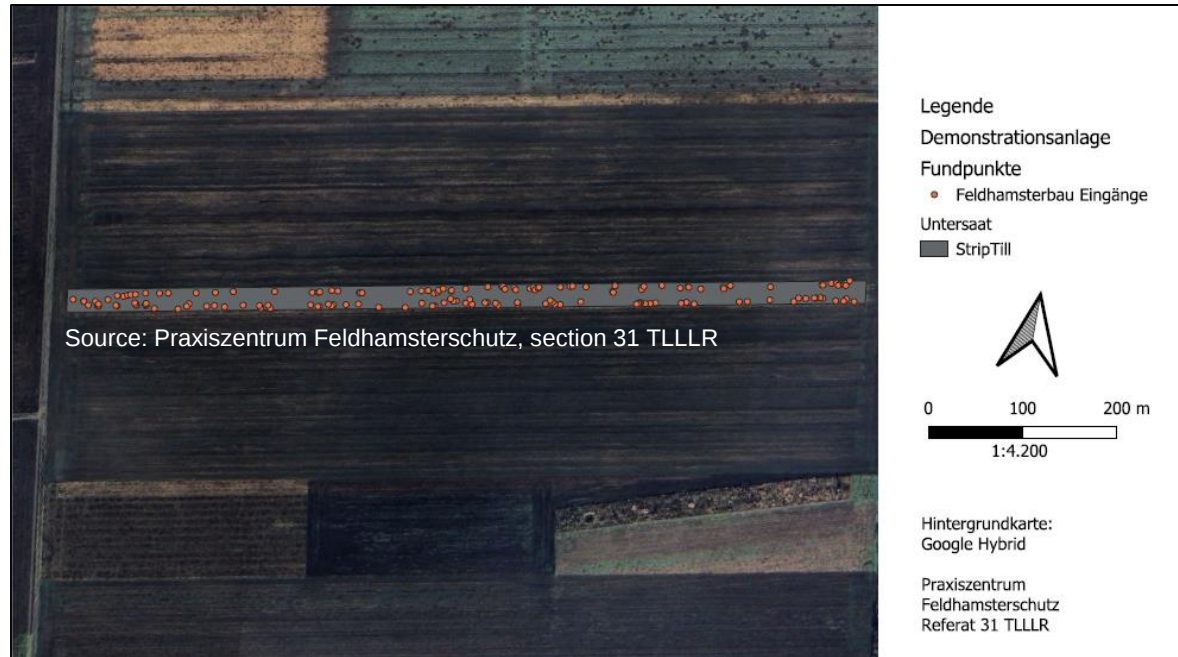
Demonstration unit with undersowing and spring barley

Variante	Bauanzahl
drone	3
control	2
StripTill	19
Tine Harrow	1
control	4



Demonstration unit with undersowing and spring barley

Year	StripTill	count
2025	burrow entrances	159
2025	hamster burrows	~ 65
2024	hamster burrows	19
2025	increase	342 %



Demonstration unit undersowing

Undersowing for farmers and hamster



Source: Sophie Schwarz



Source: Praxiszentrum Feldhamsterschutz, section 31 TLLLR

Pilot project of demonstration the straw harrow

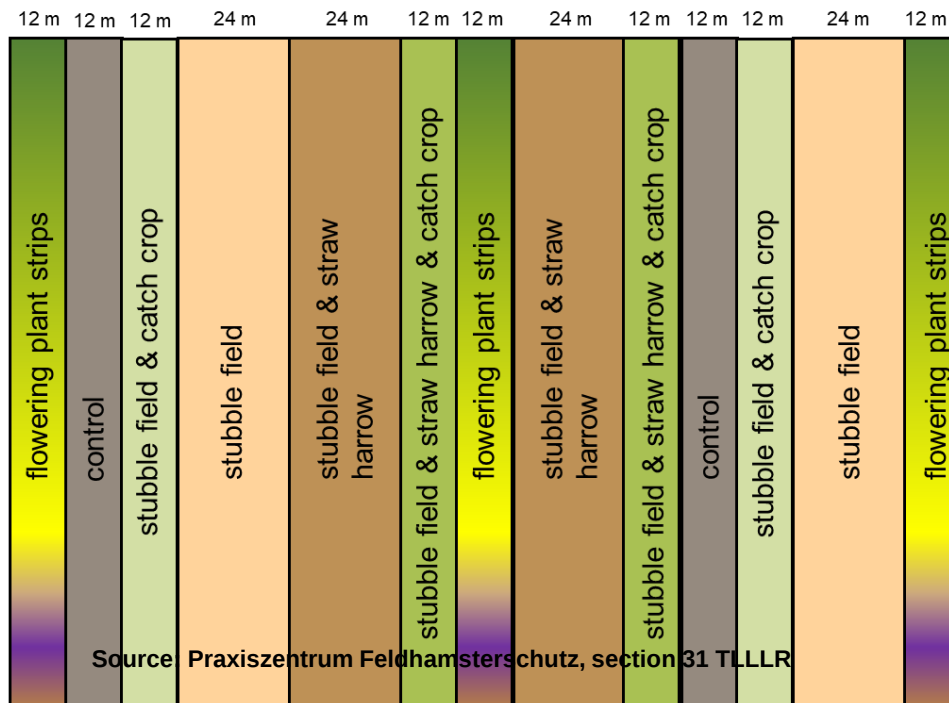
schematic

- main crop: spring barley
- Control: spring barley without stubble field and without straw harrow

cooperation with the Stiftung Lebensraum Thüringen e.V.

Main funding : TMWLLR

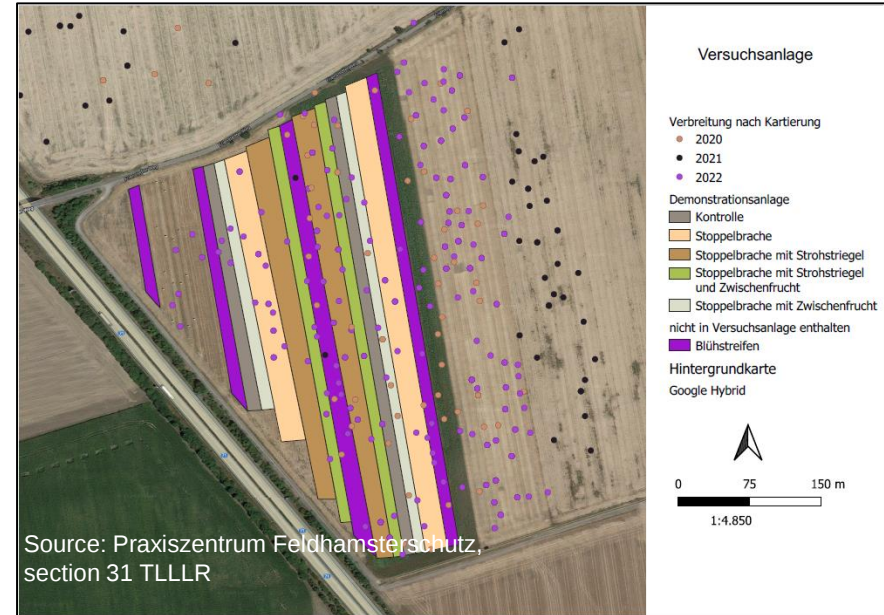
Co-funding: Deutsche Wildtierstiftung



Pilot project of demonstration the straw harrow

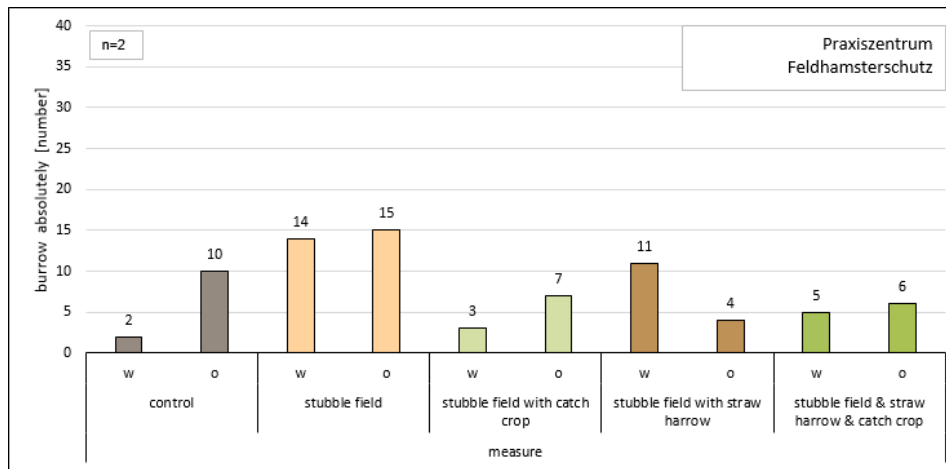
exact

- Control & stubble field

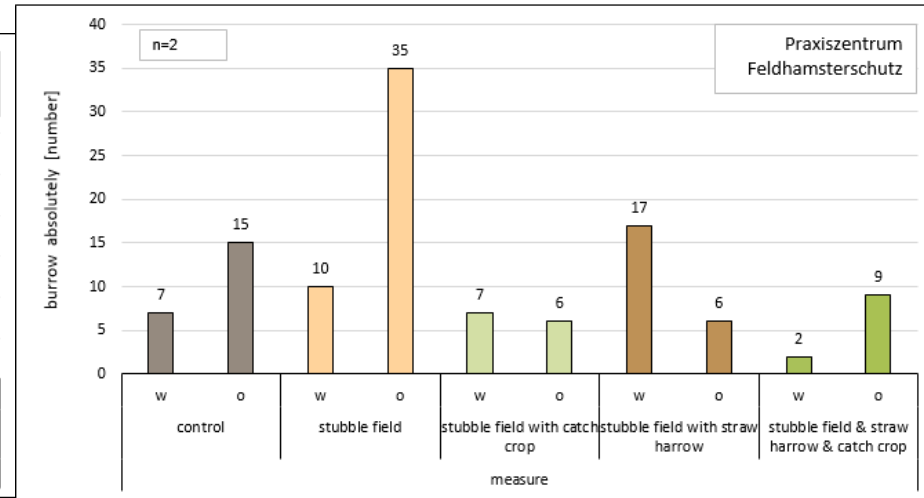


Pilot project of demonstration the straw harrow

number of hamster burrows



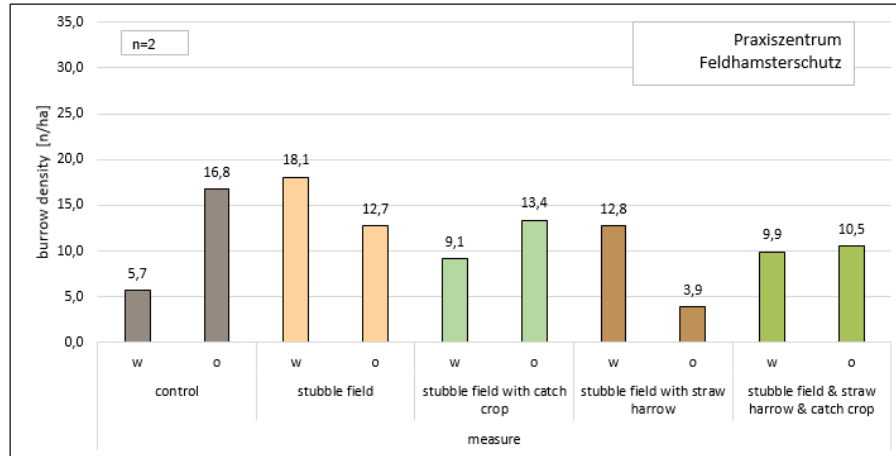
hamster burrow before straw harrow



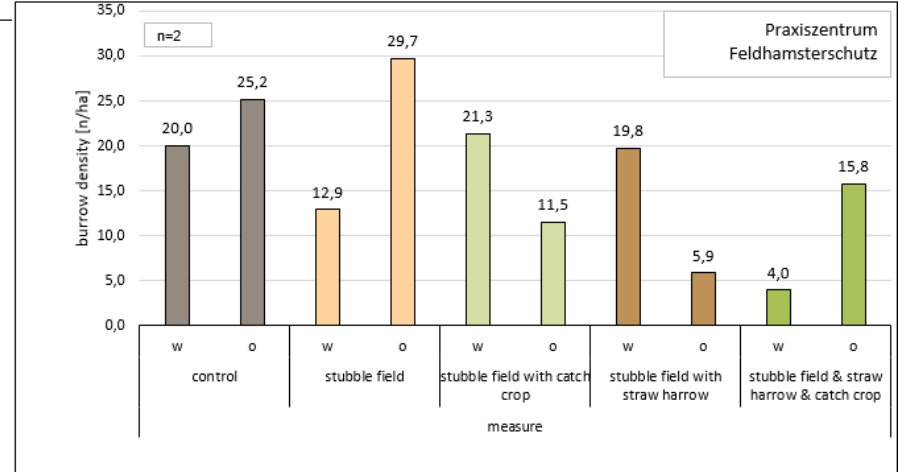
hamster burrow after straw harrow

Pilot project of demonstration the straw harrow

burrow density



hamster burrow before straw harrow

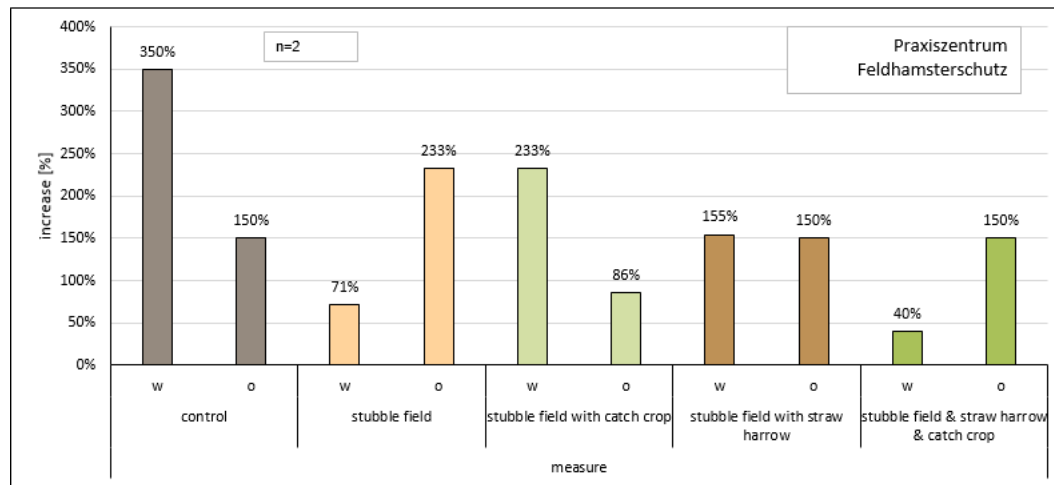


hamster burrow after straw harrow

Pilot project of demonstration the straw harrow

results

- control increased why?
 1. Stubble tillage was late (mid of september)
 2. Western control is located directly next to a flowering plant strip

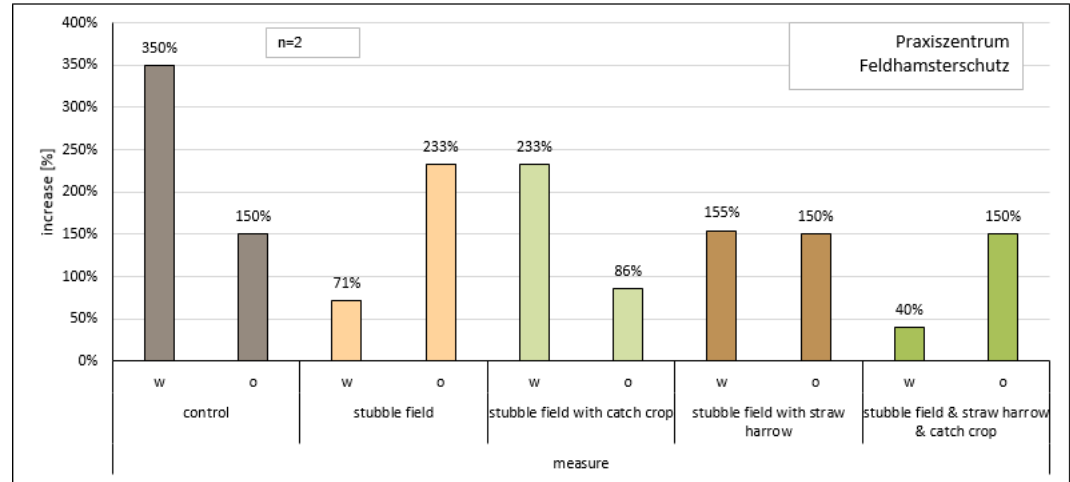


increase [burrow density in %]

Pilot project of demonstration the straw harrow

results

- Effect of catch crop is different why?
 - No sprouting of catch crop (old seeds)
 - Rolling after sowing (protection)



increase [burrow density in %]

Pilot project of demonstration the straw harrow

results

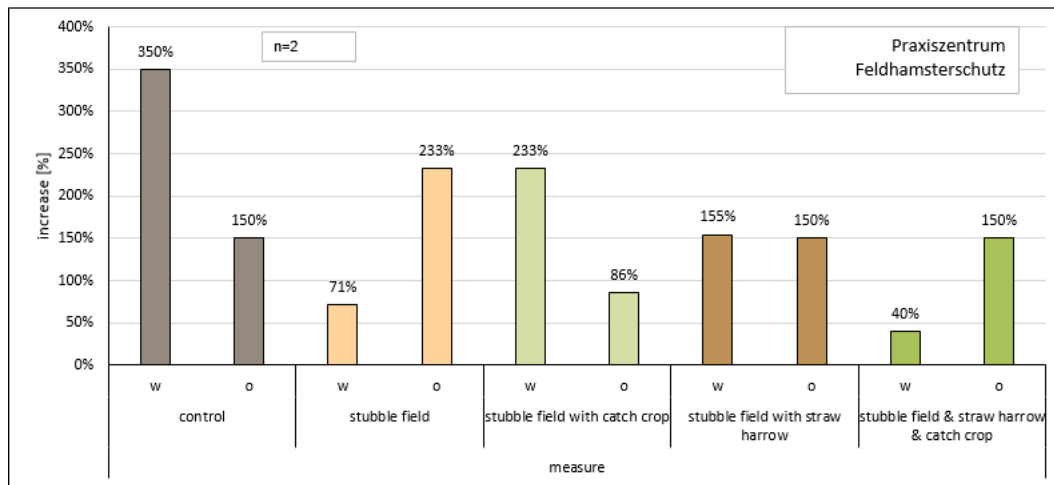
- Effect of catch crop is different
why?
 1. No sprouting of catch crop (old seeds)
 2. Rolling after sowing (protection)

results	declaration [%]
germinability	26
abnormal germinability	15
death seeds	59
sum	100

Pilot project of demonstration the straw harrow

results

- usage of Straw harrow
 - Increase of 150 % and 155 %
 - No negative Effect



Pilot project of demonstration the straw harrow

demonstration unit 2025

- Size: 24,62 ha
- Using the straw harrow at one side
- Comparing both sides



Pilot project of demonstration the straw harrow

What is a straw harrow and why should we use it?



Pilot project of demonstration the straw harrow

What is a straw harrow and why should we use it?



Pilot project of demonstration the straw harrow

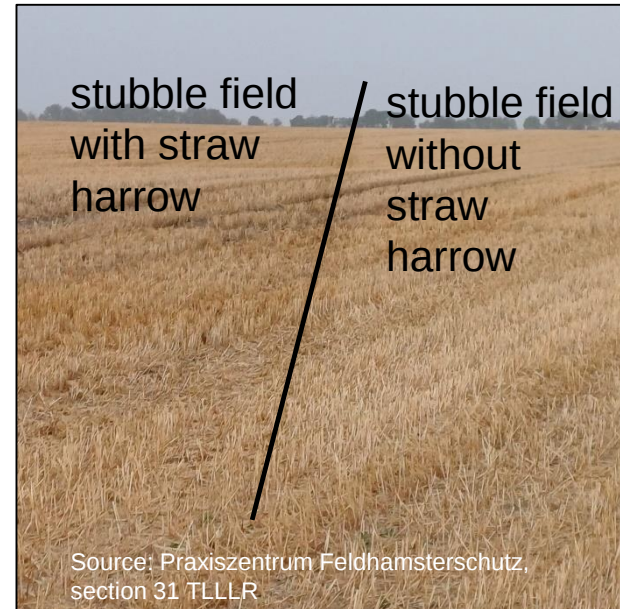
What is a straw harrow and why should we use it?

arguments for hamster:

- Sprouting of volunteer grain for water supply
- ➡ less problems with dry summers

arguments for farmers:

- sprouting of volunteer grain
 - less grain plants of the last year in the next culture
- ➡ less contamination of the next harvest



Pilot project of demonstration the straw harrow

What is a straw harrow and why should we use it?

- Working depth only around 1 cm
- Working on the whole surface by using the right driving speed



Pilot project of demonstration the straw harrow

Less grain for hamsters?

- 1: sprouting grain for water supply
- 2: not sprouted grain still for winter

Straw harrow for farmers and hamsters



More demonstration units

- New seedmix for sowing in fall
- Optimization of the seeding rate
- New plant species for seedmixes



color variation of hamsters

colorful



black



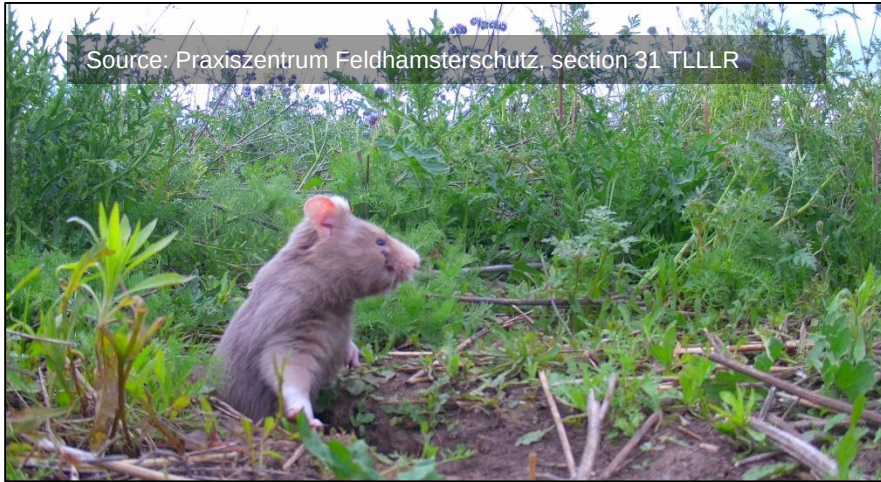
color variation of hamsters

chestnut



color variation of hamsters

grey



First record by biology Wolfgang Hock

26th-28th sep, Leipzig

Gabriel Leicht, section 31 TLLLR

color variation of hamster

hair samples



Is the common hamster still a crop pest?

question time

What level of crop loss caused by agricultural machinery should be targeted in cereal cultivation?

- a) 1,0 %
- b) 2,5 %
- c) 5,0 %



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**Harvest yield per hectare winter wheat
~ 8 tons**

$$8000 \text{ kg} * 0,01 = 80 \text{ kg}$$

Is the common hamster a crop pest?

question time

Harvest yield per hectare winter wheat

~ 8 tons

$$8000 \text{ kg} * 0,01 = 80 \text{ kg}$$

Needed stock for hamster:

- **1,5 kg (Deutsche Wildtierstiftung)**

<https://www.deutschewildtierstiftung.de/wildtiere/feldhamster>

- **2 – 4 kg (MDR)**

<https://www.mdr.de/wissen/umwelt-klima/feldhamster-rote-liste100.html>



Is the common hamster a crop pest?

question time

Crop loss ~ 80 kg

Needed stock for hamster ~ 2 kg

Needed hamster for pick up crop loss:
 $80 / 2 = 40$ common hamster



Is the common hamster a crop pest?

question time

Needed hamster for pick up crop loss:

$80 / 2 = 40$ hamster

**One common hamster use more than
one burrow (~ 2-3)**

**We need a burrow density of 80 – 120
burrows per hectare**



Is the common hamster a crop pest?

question time

Result:

Today the hamster isn't a crop pest anymore

The presence of hamster does not lead to crop loss



unique characteristic of the Praxiszentrum Feldhamsterschutz Part TLLLR

- great cooperation with the TLUBN and other ecological players
- contact to farmers
- melanistic hamster
- know-how about agriculture and environment protection
- own agricultural business in our department
- fields with the most hamster
- direct access to the fields
- short way to fields
- **Only ability for convincing research work on the field**



Source: Praxiszentrum Feldhamsterschutz,
section 31 TLLLR

unique characteristic of the Praxiszentrum Feldhamsterschutz Part TLLLR

We should not be a project with an end in
2026

**We should be a supraregional
unlimited centre of knowlegde about
the hamster**



Source: Sophie Schwarz



Source: Praxiszentrum Feldhamsterschutz,
section 31 TLLLR

If we're no longer
around, the
common hamster
will suffer, too
Praxiszentrum
Feldhamsterschutz
Part TLLR

Source: photo: Praxiszentrum
Feldhamsterschutz, design: Sophie Schwarz



Wanted
common
hamster